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09/780,817	02/09/2001	Peter Fredrik Janson	30566.118-US-01	9863

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EXAMINER

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2174

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/780,817
Filing Date: February 09, 2001
Appellant(s): JANSON, PETER FREDRIK

Peter Fredrik Janson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 9/15/05 appealing from the Office action mailed 4/19/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6331858	Fisher	12-2001
6,374,402	Schmeidler	04-2002
6414693	Berger	07-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 10-16, 19-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Fisher (US 6,331,858).

As per claim 1, Fisher teaches a computer-implemented method for synchronizing data between a graphical client and a server, comprising:

(a) downloading one or more root object nodes of a scene from the server to the graphical client, wherein the scene is a collection of parameter values for rendering a model (col. 3, lines 14-40; col. 5, lines 40-50; Examiner interprets furniture to be object nodes);

(b) intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes, wherein the view frustum is the part of the model between cutting planes defined by the scene (col. 5, lines 15-25; It is inherent when the user navigates the view to the right or the left, some objects would become or stay visible, and some objects would become or stay undefined); and

(c) downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client, wherein the graphical client tenders the scene from the object nodes (col. 4, lines 62-65, col. 5, lines 10-14).

As per claim 2, Fisher teaches the method of claim 1, further comprising:

(d) determining whether the downloaded object nodes reference other object nodes (col. 5, lines 41-62); and

(e) repeating steps (b) and (c) for the other object nodes (col. 5, lines 41-62).

As per claim 3, Fisher teaches the method of claim 2, further comprising:

(f) repeating steps (d) and (e) until the set of visible and undefined object nodes is empty (col. 5, lines 41-62).

As per claim 4, Fisher teaches the method of claim 3, further comprising rendering the scene when the set of visible and undefined object nodes is empty (col. 5, lines 41-62).

As per claim 5, Fisher teaches the method of claim 4, further comprising repeating steps (a) through (f) when a camera changes the scene (col. 5, lines 15-24)

As per claim 6, Fisher teaches the method of claim 1, wherein the downloading step (a) comprises downloading descriptions of the root object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes (col. 5, lines 41-51).

As per claim 7, Fisher teaches the method of claim 1, wherein the downloading step (a) comprises downloading descriptions of the object nodes from the server to the graphical client, wherein the descriptions include references to other object nodes comprising unique persistent identifiers for the referenced object nodes with their associated bounding volumes (col. 4, lines 62-65, col. 5, lines 10-14)

As per claim 10, it is rejected with the same rationale as claim 1. (see rejection above)

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As per claim 11, it is of the same scope as claim 2. (see rejection above)

As per claim 12, it is of the same scope as claim 3. (see rejection above)

As per claim 13, it is of the same scope as claim 4. (see rejection above)

As per claim 14, it is of the same scope as claim 5. (see rejection above)

As per claim 15, it is of the same scope as claim 6. (see rejection above)

As per claim 16, it is of the same scope as claim 7. (see rejection above)

As per claim 19, it is rejected with the same rationale as claim 1. (see rejection above)

As per claim 20, it is of the same scope as claim 2. (see rejection above)

As per claim 21, it is of the same scope as claim 3. (see rejection above)

As per claim 22, it is of the same scope as claim 4. (see rejection above)

As per claim 23, it is of the same scope as claim 5. (see rejection above)

As per claim 24, it is of the same scope as claim 6. (see rejection above)

As per claim 25, it is of the same scope as claim 7. (see rejection above)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 17, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 6,331,858) in view of Schmeidler et al. (US 6,374,402).

As per claim 8, Fisher teaches the method of claim 1. However he fails to teach wherein the server is a stateless server. Schmeidler et al. teaches using a stateless server (col. 22, lines 21-33). It would have been obvious to an artisan at the time of the invention to include Schmeidler et al.'s teaching with Fisher's method in order to allow the server to be easily scaled by deploying more server machines.

As per claim 17, it is of the same scope as claim 8. (see rejection above)

As per claim 26, it is of the same scope as claim 8. (see rejection above)

Claims 9, 18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 6,331,858) in view Berger et al. (US 6,414,693).

As per claim 9, Fisher teaches the method of claim 1. However he fails to teach wherein the graphical client includes a cache. Berger et al. teaches using a cache on the client side (col. 8, line 68, col. 9, lines 1-2). It would have been obvious to an artisan at the time of the invention to include Berger et al.'s teaching with Fisher's method in order to allow quick access to frequently used data.

As per claim 18, it is of the same scope as claim 9. (see rejection above)

As per claim 27, it is of the same scope as claim 9. (see rejection above)

(10) Response to Argument

Applicant's arguments focused on the following:

A) Fisher fails to teach "downloading one or more root object nodes of a scene from the server to the graphical client."

B) Fisher fails to teach “intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes, wherein the view frustum is the part of the model between cutting planes defined by the scene.”

C) Fisher fails to teach “downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client, wherein the graphical client renders the scene from the object nodes.”

Examiner answers:

A) Fisher teaches “downloading one or more root object nodes of a scene from the server to the graphical client.”

During patent examination, the claims are given the broadest reasonable interpretation consistent with the specification. See *In re Morris*, 127 F.3d 1048, 44 USPQ2d 1023 (Fed. Cir. 1997). Here, the specification of the application defines a roots object node as an anchoring node that has one or more object nodes connected to it by zero or more edges. (specification; page 5, lines 25-30) Similarly, each furniture node of Fisher is a roots object node, because it acts as an anchoring node that allows user to attach additional object nodes, such as fabric type, to it. (column 4, lines 16-46) The fabric type is a separate data object from the furniture node in that users can change the fabric type without changing the furniture. (column 4, lines 35-46)

Furthermore, the furniture object nodes are downloaded from a server because the system disclosed by Fisher is an internet system that requires users to download scenes from a server. (column 3, lines 40-57)

B) Fisher teaches “intersecting bounding volumes for the object nodes with a view frustum in the graphical client to determine a set of visible and undefined object nodes, wherein the view frustum is the part of the model between cutting planes defined by the scene.”

Based on the specification of the application, this limitation recites a stage that happens right before a 3D scene is fully displayed on a client’s computer, where there is a set of objects that still needs to be downloaded. (specification; page 6, lines 27-35, page 8, lines 23-25; figure 4, figure 4. item 404, 414) A visible and undefined object, as inferred from the specification, is an object that is selected by a user but is still undefined on the screen, and it only exists before the scene is fully rendered. (specification; page 6, lines 27-35) The intersecting bounding volumes of the object nodes with a view frustum can be interpreted as a user’s view of a virtual 3D world (specification page 8, lines 23-25; figure 4) This interpretation is supported by the specification because the VU object nodes are redefined when user’s perspective / camera has moved. (specification; figure 4. item 404, 414)

Fisher’s system also encounters the pre-download stage, whenever a user decides to change his/her view point of Fisher’s 3D world, (Fisher column 5, lines 25-41) or add an item to the 3D world. (Fisher; column 5, lines 40-60) Just like the applicant, Fisher determines which VU object needs to be added to the new scene. (Fisher column 5, lines 45-52) Therefore, Fisher teaches this limitation.

C) Finally, Fisher teaches downloading the object nodes in the set of visible and undefined object nodes from the server to the graphical client, wherein the graphical client renders the scene from the object nodes.

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Based on the specification of the application, a visible and undefined object is an object that is selected by a user but is still undefined on the screen, and it only exists before the scene is fully rendered. (specification; page 6, lines 27-35) Here, after Fisher determines which VU object needs to be added to a new user defined scene, (Fisher column 5, lines 45-52) the VU object is downloaded from the server. (Fisher, column 5, lines 45-51)

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Peng Ke

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